Name:_____ Date: _____

SUPERSATURATED SOLUTIONS

PURPOSE:

SAFETY:

MATERIALS:

Test Tube	Striker	Water	Test Tube Rack	Two Beakers
Spatula	Bunsen Burner	Test Tube Holder	Sodium Thiosulfate	

SET-UP

PROCEDURE:

1. Before starting, fill a beaker half way with water and heat at medium high heat.
2. Put ½ inch of water in the test tube,
3. Fill 2/3 of the test tube with Sodium Thiosulfate.
4. Feel the test tube as the Sodium Thiosulfate is dissolving in the water. Record your observations below.
5. Heat the test tube in the water bath beaker until all the Sodium Thiosulfate dissolves in the water.
6. Cool the test tube in the ice bath. Record your observations below.
7. Add one crystal of Sodium Thiosulfate. Record your observations below.
8. Give your test tube to your teacher when completed for disposal.

OBSERVATIONS

1. Describe the temperature as the Sodium Thiosulfate dissolves in the water BEFORE heating.

2. After cooling in the ice bath, describe the appearance of the solution before adding the seed crystal.

3. Describe the change that occurs once the seed crystal is added to the solution.

4. Describe the temperature of the test tube after the seed crystal is added.

QUESTIONS

1. Explain the differences between saturated, unsaturated and supersaturated solutions in terms of solute and solvents.
2. When too many resturants open in the same neighborhood, you may hear the market for restaurants is now saturated. Explain what this statements means and how it relates to solutions being saturated. Be descriptive!!
3. Characterize each of the following situations as saturated, unsaturated or supersaturated.
    a. A solution that will produce large amounts of crystalline solid when you add just a small additional amount of solute crystal to it.
    b. A solution that will remain dissolved even when you add additional solute to it.
    c. A solution in which, if you add a small additional solute, that small amount of solute will remain undissolved at the bottom of the container.